Environmental Protection Agency

Review and Comment
of letter submitted September 16, 1992
Draft EMD OP GT.30
In-Situ Characterization of Radionuclides

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Comment: "Within the "In-Situ Characterization of Radionuclides" SOP GT.30, there is a lack of specificity in setting the operating parameters prior to data acquisition (bias voltage, acquisition time, amplifier settings, etc.). The procedure must define a "reality check" of the system, i.e., it does not verify that the system is actually developing and storing a real gamma spectrum. In addition, there are no procedures presented to demonstrate that the spectrometer is properly calibrated or that the detector is set up and positioned properly on the measurement site. There appears to be no procedure for entering the location coordinates, sample identification, and other similar data for storage on the magnetic medium.

In sum, the SOPs seem correct but incomplete as there are some important steps missing. Concerning the GT.30 procedure, there are no hints about the quality control steps one would have to take to assure that the resulting data is legitimate. Gamma spectroscopy, especially in a field situation, is a complicated operation and the application of this SOP will not guarantee that the data acquired with it will be correct or defensible."

Response: The SOP for In-Situ Characterization of Radionuclides is strictly an operating procedure and is not intended to serve as a training manual for the equipment. The operators must be thoroughly trained and understand the equipment they are using. For this same reason,
the quality function is not included in the SOP. Quality is maintained by a separate organization which monitors and reports on how well the operators are adhering to the established procedures. Written records of these surveillances are maintained to document performance. Although these issues are not addressed in the SOP, these questions are important. In order to provide more information about the HPGe and other in-situ methods, we are developing a ***Compendium of In-Situ Radiological Characterization Methods and Analysis.*** This document will provide more information about the HPGe system that does not appear in the SOP.